Year Group	Year 7					
Subject intent	Our curriculum will enable students to: - Learn within a coherent and exciting framework which does not limit students' ambitions. - Develop new skills through a variety of interesting contexts to foster enjoyment. - Develop a rich, deep and secure subject knowledge. - Understand what they are doing well and how they need to improve. - Explore the breadth and depth of the national curriculum.] - Improve their spiritual, social, moral and cultural understanding to develop confidence in their own financial and numerical understanding					
Subject Implementation	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Knowledge	**Year 7 Higher:** - Analysing and displaying data. **Year 7 Intermediate:** - Analysing and displaying data **Year 7 Foundation:** - Analysing and displaying data	**Year 7 Higher:** - Number skills. **Year 7 Intermediate:** - Number skills **Year 7 Foundation:** - Number skills	**Year 7 Higher:** - Expressions, functions and formulae **Year 7 Intermediate:** - Expressions, functions and formulae **Year 7 Foundation:** - Expressions, functions and formulae	**Year 7 Higher:** - Decimals and measures **Year 7 Intermediate:** - Decimals and measures **Year 7 Foundation:** - Decimals and measures	**Year 7 Higher:** - Fractions **Year 7 Intermediate:** - Fractions **Year 7 Foundation:** - Fractions	End of Exam preparation and consolidation tasks

| Skills | - Numeracy skills (multiply/ divide/ add/ subtract.)
- Count
- Draw different statistical charts. | -Numeracy skills (multiply/ divide/ add/ subtract.)
-Rounding
-Using a scientific calculator
- order positive and negative integers, decimals and fractions; use the symbols =, ≠, <, > , ≤, ≥ | "use and interpret algebraic manipulation, including:

● ab in place of a × b

● 3y in place of y + y + y and 3 × y

● a2 in place of a × a, a3 in place of a × a × a, a2b in place of a × a × b

● a/b in place of a ÷ b

● coefficients written as fractions rather than as decimals

● brackets"

"simplify and manipulate algebraic expressions (including those involving surds and algebraic fractions) by:

● collecting like terms

● multiplying a single | order positive and negative integers, decimals and fractions; use the symbols =, ≠, <, > , ≤, ≥

use scale factors, scale diagrams and maps

Using formulae to calculate the area of 2D shapes.

Rounding

Calculate the area and perimeter of 2d shapes using the non-calculator and calculator method .

Multiply decimals by multiples of 10, 100 and 1000, add and subtract decimals.

Convert between different unit of measures. | Compare fractions

Change an improper fraction to a mixed number.

Simplify fractions by dividing numerator and denominator by common factors.

Add and subtract simple fractions.

Work with equivalent fractions and decimals.

Convert a percentage to a fraction or decimal.

Work with equivalent percentages, fractions and decimals.

Use different strategies to calculate with percentages. | Revisit topics from previous learning to consolidate and / stretch students learning further. |

			term over a bracket			
			● taking out common factors			
			● expanding products of two or more binomials			
			● factorising quadratic expressions of the form $x2 + bx + c$, including the difference of two squares; factorising quadratic expressions of the form $ax2 + bx + c$			
			● simplifying expressions involving sums, products and powers, including the laws of indices"			
Subject Impact	Interpret and construct tables, charts and diagrams, including frequency tables, bar charts, pie charts and pictograms	Apply the four operations, including formal written methods, to integers, decimals and simple	understand and use the concepts and vocabulary of expressions, equations, formulae,	apply the four operations, including formal written methods, to integers, decimals and simple	apply the four operations, including formal written methods, to integers, decimals and simple	Students are able to demonstrate the outcomes stated from autumn one to summer one.

for categorical data, vertical line charts for ungrouped discrete numerical data, <u>tables and line graphs for time series data</u> and know their appropriate use. interpret, analyse and compare the distributions of data sets from univariate empirical distributions through: ● appropriate graphical representation involving discrete, continuous and grouped data, **including box plots** ● appropriate measures of central tendency (median, mean, mode and modal class) and spread (range, including consideration of outliers, **quartiles and interquartile range**)	fractions (proper and improper), and mixed numbers – all both positive and negative; understand and use place value (e.g. when working with very large or very small numbers, and when calculating with decimals) recognise and use relationships between operations, including inverse operations (e.g. cancellation to simplify calculations and expressions); use conventional notation for priority of operations, including brackets, powers, roots and reciprocals use the concepts and vocabulary of prime numbers, factors (divisors), multiples, common factors, common multiples, highest common factor, lowest	identities, inequalities, terms and factors substitute numerical values into formulae and expressions, including scientific formulae	fractions (proper and improper), and mixed numbers – all both positive and negative; understand and use place value (e.g. when working with very large or very small numbers, and when calculating with decimals) use standard units of mass, length, time, money and other measures (including standard compound measures) using decimal quantities where appropriate round numbers and measures to an appropriate degree of accuracy (e.g. to a specified number of decimal places or significant figures); use inequality notation to specify simple error intervals due to truncation or rounding	fractions (proper and improper), and mixed numbers – all both positive and negative; understand and use place value (e.g. when working with very large or very small numbers, and when calculating with decimals) calculate exactly with fractions, surds and multiples of π; simplify surd expressions involving squares (e.g. $\sqrt{12} = \sqrt{(4 \times 3)} = \sqrt{4} \times \sqrt{3} = 2\sqrt{3}$) and rationalise denominators work interchangeably with terminating decimals and their corresponding fractions (such as 3.5 and 7/2 or 0.375 or 3/8); change recurring decimals into their corresponding fractions and vice versa	

		common multiple, prime factorisation, including using product notation and the unique factorisation theorem use positive integer powers and associated real roots (square, cube and higher), recognise powers of 2, 3, 4, 5; estimate powers and roots of any given positive number use standard units of mass, length, time, money and other measures (including standard compound measures) using decimal quantities where appropriate estimate answers; check calculations using approximation and estimation, including answers obtained using technology		change freely between related standard units (e.g. time, length, area, volume/capacity, mass) and compound units (e.g. speed, rates of pay, prices, density, pressure) in numerical and algebraic contexts use standard units of measure and related concepts (length, area, volume/capacity, mass, time, money, etc.) measure line segments and angles in geometric figures, including interpreting maps and scale drawings and use of bearings know and apply formulae to calculate: area of triangles, parallelograms, trapezia; volume of cuboids and other right prisms (including cylinders)	interpret fractions and percentages as operators express one quantity as a fraction of another, where the fraction is less than 1 or greater than 1 define percentage as `number of parts per hundred¿; interpret percentages and percentage changes as a fraction or a decimal, and interpret these multiplicatively; express one quantity as a percentage of another; compare two quantities using percentages; work with percentages greater than 100%; solve problems involving percentage change, including percentage increase/decrease and original value problems, and simple interest including in financial mathematics	

			round numbers and measures to an appropriate degree of accuracy (e.g. to a specified number of decimal places or significant figures); use inequality notation to specify simple error intervals due to truncation or rounding				
Assessment	Summative and formative	Summative and formative	Summative and formative	Summative and formative	Summative and formative	Summative and formative